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Introduction to REST APIs

Unlock the Power of REST APIs for Seamless Data Interaction

DEFINITION

> REST APIs are a set of rules for building web services that allow different applications to communicate over the internet. They use standard HTTP methods to perform operations on resources.

KEY CONCEPTS

HTTP Methods

REST APIs primarily use GET, POST, PUT, and DELETE methods to interact with resources.

Statelessness

Each API call is independent; the server does not store client context between requests.

Resources

Resources are the objects or data that APIs manage, typically represented in JSON or XML format.

Endpoints

Endpoints are specific URLs where API resources can be accessed or manipulated.

Status Codes

HTTP status codes indicate the result of an API request, such as 200 for success or 404 for not found.

EXAMPLES

→ GET /users to retrieve a list of users

→ POST /orders to create a new order

→ DELETE /products/123 to remove a product with ID 123

MEMORY TIPS

★ Remember 'CRUD' for Create, Read, Update, Delete operations.

★ Think of REST as 'Representational State Transfer' to recall its purpose.

★ Use 'GET your data, POST new data, PUT update, DELETE what you don't need' to remember HTTP methods.

COMMON MISTAKES

✗ Confusing POST with PUT; POST creates, while PUT updates existing resources.

✗ Neglecting to handle HTTP status codes properly.

✗ Assuming REST APIs maintain state between requests.

QUICK RECAP

REST APIs are essential for enabling communication between applications over the web. They rely on standard HTTP methods and are designed to be stateless, ensuring each request is independent. Remember key concepts like resources, endpoints, and status codes for effective API interaction.